UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,394	10/16/2003	Barry Bara	JOHNS-205	6683

23599 7590 10/16/2007
MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201

EXAMINER	
MATTHEWS, TERRELL HOWARD	

ART UNIT	PAPER NUMBER
3653	

MAIL DATE	DELIVERY MODE
10/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/685,394	BARA ET AL.
	Examiner	**Art Unit**
	Terrell H. Matthews	3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2007*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *6-15* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments, see Pg 5-8, filed 1/10/2007, with respect to the rejection(s) of claim(s) 1-13 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Garner (US-7141162).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-8, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruyer (US-4406793) in view of Duczmal (US-5192423).

Referring to claims .1 Kruyer discloses the "Use of Free Bodies To Increase Size of Dispersed Phase Particles". See Figs. 1-5 and respective portions of the specification. Kruyer further discloses a process for treating a stream of oil and hydrocarbon containing bitumen droplets and separating it in a separator comprising; providing an elongated closed vessel (12) having a circular cross section and a longitudinal axis, said vessel having an inlet (24) at one end and an outlet (28) at its other end; injecting the slurry stream (23) through the inlet to cause the slurry to rotate as it advances longitudinally through the chamber, so that bitumen droplets move inwardly toward the chamber axis and are concentrated, thereby increasing the probability of bitumen droplet contact, coalescence and growth, and producing a treated slurry stream; expelling the treated slurry stream through the vessel outlet (28) (See at least Col. 7 l. 53 – Col. 8 l. 5, Col. 8 l. 10-25, Col. 8 l. 51-60 & at least Figs. 1-2). Kruyer does not disclose introduction the expelled treated slurry into the separator (See at least Col 8 l. 45-48). Kruyer does not disclose wherein the stream is a stream consisting of oil sand slurry containing bitumen droplets and sand. It should be noted that Kruyer broadly construes wherein the drum (12) serves as a coalescer wherein the bitumen droplets contact and grow. Duczmal discloses an "Appratus and Method For Separation of Wet Particles". See Figs. 1-7 and respective portions of the specification. Duczmal further discloses a process for treating a stream of aqueous aerated oil sand slurry containing bitumen droplets and sand and separating it in a separator comprising; providing an elongated closed vessel (12); injecting the slurry through the inlet (14) to cause the slurry to rotate as it advances, thereby increasing the probability of bitumen droplet contact, coalescence, and growth, and producing a treated slurry stream; expelling the treated slurry through the vessel outlet (32); and introducing the expelled treated slurry stream into the separator (24), separating the sand from the bitumen, and recovering the separated bitumen. It is generally understood that the catch basin (24) serves as the separator which separates the bitumen from the sand as the sand sinks and is caught in the basin while the bitumen floats and is collected by collector (30). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the apparatus of Kruyer to include the teachings of Duczmal so that the stream being processed consist of an oil sand slurry containing bitumen droplets and sand so that bitumen could be separated from sand so the bitumen can be further processed for other advantageous uses.

Claims 1-9, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruyer (US-4406793) in view of Duczmal (US-5192423) and in further view of Garner (US-7141162).

Referring to claims 1-9, 13. Kruyer discloses the "Use of Free Bodies To Increase Size of Dispersed Phase Particles". See Figs. 1-5 and respective portions of the specification. Kruyer further discloses a process for treating a stream of oil and hydrocarbon containing bitumen droplets and separating it in a separator comprising; providing an elongated closed vessel (12) having a circular cross section and a longitudinal axis, said vessel having an inlet (24) at one end and an outlet (28) at its other end; injecting the slurry stream (23) through the inlet to cause the slurry to rotate as it advances longitudinally through the chamber, so that bitumen droplets move inwardly toward the chamber axis and are concentrated, thereby increasing the probability of bitumen droplet contact, coalescence and growth, and producing a treated slurry stream; expelling the treated slurry stream through the vessel outlet (28) (See at least Col. 7 l. 53 – Col. 8 l. 5, Col. 8 l. 10-25, Col. 8 l. 51-60 & at least Figs. 1-2). Kruyer does not disclose introduction the expelled treated slurry into the separator (See at least Col 8 l. 45-48). Kruyer does not disclose wherein the stream is a stream consisting of oil sand slurry containing bitumen droplets and sand. It should be noted that Kruyer broadly construes wherein the drum (12) serves as a coalescer wherein the bitumen droplets contact and grow. Duczmal discloses an "Appratus and Method For Separation of Wet Particles". See Figs. 1-7 and respective portions of the specification. Duczmal further discloses a process for treating a stream of aqueous aerated oil sand slurry containing bitumen droplets and sand and separating it in a separator comprising; providing an elongated closed vessel (12); injecting the slurry through the inlet (14) to cause the slurry to rotate as it advances, thereby increasing the probability of bitumen droplet contact, coalescence, and growth, and producing a treated slurry stream; expelling the treated slurry through the vessel outlet (32); and introducing the expelled treated slurry stream into the separator (24), separating the sand from the bitumen, and recovering the separated bitumen. It is generally understood that the catch basin (24) serves as the separator which separates the bitumen from the sand as the sand sinks and is caught in the basin while the bitumen floats and is collected by collector (30). Garner discloses a "Bituminous Froth Inclined Plate Separator And Hydrocarbon Cyclone Treatment Process". See Figs. 1-4 and respective portions of the specification. Garner further discloses wherein bitumen is separated from sand through means of a cyclone (16) which performs gravity separation (See at least Col. 6 l. 5 – Col. 7 l.. 13). Garner further discloses wherein a slurry stream is introduced into the separator (16) by means of a pipeline (30) (See at least Fig. 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kruyer and Duczmal to include the teachings Garner so that the stream being processed consist of an oil sand slurry containing bitumen droplets and sand so that bitumen could be separated from sand so the bitumen can be further processed for other advantageous uses.

Claims 5, 9,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruyer (US-4406793) in view of Duczmal (US-5192423) and in further view of Nielsen (US-6872239).

Referring to claims 5, 9, 11. Kruyer disclose the apparatus as described above in detail. Duczmal discloses the apparatus as detailed above. Nielsen discloses a "Method and System For Separating A Mixture". See Figs. 1-1-2 and respective portions of the specification. Nilsen discloses delivery pipeline (9) that delivers the slurry to the coalescer (15) and subsequently a separator (16), which is operatively connected to the vessel outlet. Nilsen additionally, discloses a preceding step comprising of passing the slurry through a conditioning pipeline (See Col. 5 l. 21-22 & Fig. 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kruyer and Duczmal to include the teachings of Nielsen so that the treated slurry steam was introduced into the separation by means of a pipeline since a pipeline would provide an efficient and effective way to transport the slurry. It should be noted that it is generally understood and known in the art to provide a pipeline as a means of transporting slurries.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrell H. Matthews whose telephone number is (571)272-5929. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

THM

PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600